Attorney's Docket No.: 07319-091002

OFFICIAL COMMUNICATION FACSIMILE:

OFFICIAL FAX NO: 571-273-0299

Number of pages including this page 16

Applicant : Nigel Evans
Serial No.: 10/620,842
Filed : July 15, 2003

Art Unit : 3682
Examiner : Marcus Charles

Title : BELT LOOPING

Tina Lee
Appeals Division
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Attached to this facsimile communication cover sheet is a Supplemental Brief on Appeal, faxed this 24th day of February 2006, to the United States Patent and Trademark Office.

Respectfully submitted,

Date: February 24, 2006

Scott C. Harris
Reg. No. 32,030

Fish & Richardson P.C.
PTO Customer No. 20985
12390 El Camino Real
San Diego, California 92130
Telephone: (858) 678-5070
Fax: (858) 678-5099

10601236.doc

Attorney's Docket No.: 07319-091002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Nigel Evans	Art Unit :	3682
Serial No.:	10/620,842	Examiner :	Marcus Charles
Filed:	July 15, 2003		
Title:	BELT LOOPING		

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL BRIEF ON APPEAL

Sir:

Further to the Brief on Appeal filed June 7, 2005, Applicant herewith files this appeal brief under Rule 41.37, thereby perfecting the notice of appeal which was originally filed on April 7, 2005. The sections required by Rule 41.37 follow.

(1) Real Party in Interest

The application is assigned of record to Production Resource Group, L.L.C., who is here the real party in interest.

(2) Related Appeals and Interferences

There are no known related appeals and/or interferences

(3) Status of Claims

Claims 2-21 are pending in the case. Each of these claims are rejected herein, and the rejection of each of these claims

CERTIFICATE OF TRANSMISSION BY FACSIMILE

I hereby certify that this correspondence is being transmitted by facsimile to the Patent and Trademark Office on the date indicated below.

February 24, 2006
Date of Transmission

Signature

S. Gebhart

is appealed

(4) Status of Amendments

An amendment after final was filed on March 7, 2005. This amendment was apparently entered and considered.

(5) Summary of Claimed Subject Matter

The present application teaches a system which allows a special way of looping a belt with a pulley. Claim 2, for example, defines a pulley with a frictional surface, and that the pulley 110 is adjacent to a heat source 130. A motor 110 is on the first side of the pulley that is away from the heat source. A belt redirecting mechanism, 115, 125, holds the belt around a frictional surface of the pulley that is closest to the motor.

Figure 1 shows the effect of this specific winding configuration. The belt is kept away from the source of heat 130. Therefore, the belt is not stressed by the heat 130 that could otherwise cause heat effects on the belt. For example, some kinds of rubber become more brittle when heated repeatedly. Figure 1 allows the belt to be maintained away from the source of heat, thereby making this structure more reliable.

Claim 11 defines a movable device that is adjacent to the source of heat, generally the structure 120 in figure 1. The source of heat is shown as 130. Claim 11 further requires

moving the movable device using a remote motor, 100, connects to the movable device using a belt 150, and maintains the belt on the side of the movable device that is distant from the source of heat, see generally figure 1 which shows wrapping the belt in this way.

Claim 17 requires providing a movable device (120), controlling the device using a motor (100), and a belt connection that maintains the belt at all times no closer to the light than the movable device, see generally the wrapping of the belt that is shown in figure 1.

(6) Grounds of Rejection

Are claims 2-9, 11-15 and 17 unpatentable over Cleveland in view of Wharton, et al.?

Are claims 10, 16 and 18-21 unpatentable over Cleveland in view of Wharton, et al. and further in view of Demick, et al.?

(7) Argument

Claims 2-9, 11-15 and 17 are rejected over Cleveland in view of Wharton, et al. The rejection alleges that Cleveland could be modified by the teaching of Wharton, et al. However, this contention is respectfully traversed.

First, there is no incentive in either Cleveland or in Wharton, et al., nor in the combination thereof, to make the kind of modifications suggested by the rejection. Cleveland

teaches a conventional way of winding a belt 32 between a motor 30 and a movable device, apparently a shutter type device, 10. The belt is wound conventionally, so it is placed adjacent the optical gate 28. Based on the recognition of the present system, the belt is heated at that location. Nowhere is there any teaching or suggestion of any other way of winding the belt in Cleveland, or of any problems from winding the belt in this way.

Wharton, et al. teaches a double-sided belt 26 used to contact a driven pulley in a railroad car. Wharton, et al. teaches that this configuration supports "the driving belt around a substantial portion of the circumference of the driving pulley, so that the efficient power takeoff without slippage is assured", see column 1 lines 67-70. Note that this is used in a railroad generator, where it becomes very important to obtain a high degree of torque from the belt.

Therefore, Wharton, et al. teaches using that specific technique of winding the belt when it is desired to obtain additional torque. Cleveland, on the other hand, does not need additional torque. The shutter assembly of Cleveland is presumably a relatively lightweight system, and certainly there is no teaching that it requires extra torque in order to rotate this shutter. Therefore, a person having ordinary skill in the

art would not obtain any motivation from the hypothetical combination of Cleveland in view of Wharton, et al. in order to use Wharton, et al.'s techniques in Cleveland. One would only obtain guidance to use the techniques of Wharton, et al. when extra torque was desired. One having ordinary skill in the art would not believe that extra torque was necessary or even desirable in Cleveland.

In order to use the techniques of Wharton, et al., it would be required that extra structure, specifically the idler arms 22, 24, be added. This would require adding additional structure to the Cleveland system. It is not entirely clear how the idler arms could be supported in the Cleveland system, but even if they could, it would certainly make more complex structure in Cleveland, for no reason. The extra torque that is taught by Wharton, et al. is apparently not needed in Cleveland. In fact, the complication of the structure which would be caused by the extra idler arms, without any expectation of any improved performance or results, would actually teach a person of ordinary skill in the art away from making the hypothetical combination of Cleveland in view of Wharton, et al.

Therefore, a person having ordinary skill in the art would not make the hypothetical combination of Cleveland with Wharton, et al.

Nowhere is there any teaching or suggestion in either Cleveland or Wharton, et al. of anything suggesting keeping the belt away from the heat source. Neither of these references teach anything about that subject matter.

The rejection alleges that it would have been obvious to modify Cleveland's teaching to obtain more efficient power takeoff without slippage. However, this contention is based on hindsight, not on the teaching of Cleveland. Cleveland teaches that the device being driven is a shutter device, which is presumably a very light and easily moved structure. Moreover, Cleveland teaches that the motor 30 is the type for "providing finely controlled shutter driving speeds". More efficient power takeoff is inconsistent with the content of more exact control of these shutters. In fact, since the position is exactly controlled, this implies that there is already zero slippage. Nowhere is there any teaching or suggestion Cleveland of more efficient power takeoff. A person having ordinary skill in the art, in fact, would presume that the shutter was very light, and would not believe that it was necessary to obtain more efficient takeoff in the shutter movement.

To summarize the above, the rejection attempts to combine two references, without any incentive to make that combination. The rejection alleges that it would be obvious to use techniques

that were applicable to a railroad car generator, in order to obtain more torque from the railroad car generator, in a finely controlled shutter for a light source. A person having ordinary skill in the art would not believe this to be the case. The hypothetical combination is made based on hindsight, not based on the teaching of the references. A person having ordinary skill in the art who consulted these references, in fact, would not believe that the teaching of Wharton, et al. would improve Cleveland. In fact, they would conclude that it would make Cleveland unnecessarily complex. This is because neither reference teaches anything about keeping the belt away from the source of heat, as claimed.

Claim 2 requires the belt redirecting mechanism that holds the belt around the frictional surface of the fully "at a side of the pulley which is closest to said motor". The hypothetical combination of Cleveland and Wharton, et al. does not fairly teeth or suggest this subject matter, and therefore these claims should be allowable thereover.

Claim 11 defines "maintaining said belt on the side of said movable device which is distant from said source of heat". Nowhere does the hypothetical combination of references teach or suggest this feature. As discussed above, a person having ordinary skill in the art would not be guided to make this

hypothetical combination of references. However, even if the hypothetical combination was made, there would still be no teaching or suggestion of this specific claimed subject matter of maintaining the belt on a side of the movable device which is distant from the source of heat. Quite simply, this is not taught or suggested by the cited prior art. Therefore, claim 11 should be additionally patentable for these reasons.

Claims 17 defines "maintaining said belt connection at all times no closer to said light than said movable device". Again, a person having ordinary skill in the art would not make this hypothetical combination of references, for reasons discussed above. Moreover, even if the hypothetical combination of references was made in this way, there is nothing teaching or suggesting this specific claimed positional relationship.

The additionally cited reference to Demick, et al. may teach a high intensity and wattage bulb. However, it teaches nothing about maintaining the belt distant from that bulb, as claimed.

Attorney's Docket No.: 07319-091002

Please apply the brief fee and any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: February 24, 2006

Scott C. Harris
Reg. No. 32,030

Fish & Richardson P.C.
PTO Customer No. 20985
12390 El Camino Real
San Diego, California 92130
Telephone: (858) 678-5070
Facsimile: (858) 678-5099

10597703.doc

Appendix of Claims

2. A system, comprising:

a pulley, having a frictional surface around an outer perimeter thereof, said pulley being adjacent to a heat source, and rotating to control an object which will be placed near said heat source;

a motor, on a first side of the pulley, away from said heat source;

a belt; and

a belt redirecting mechanism, which holds the belt around a frictional surface of the pulley, and a side of the pulley which is closest to the motor.

3. A system as in claim 2, wherein said belt redirecting mechanism includes first and second idlers, offset from both said motor and said belt, and having a first idler on a first side of said pulley and a second idler on a second side of said pulley.

4. A system as in claim 3, wherein said belt includes a first frictional surface on a first side thereof and a second frictional surface on a second side thereof.

5. A system as in claim 4, wherein said first and second idlers are arranged to contact a first frictional surface of the belt, and said second frictional surface of the belt us arranged to contact said pulley.

6. A system as in claim 2, further comprising a light beam changing mechanism, attached to said pulley, having different light changing characteristics at different areas thereof, and moved by said pulley to change the light characteristics.

7. A system as in claim 6, wherein said light beam changing mechanism is a color changer.

8. A system as in claim 6, wherein said light beam changing mechanism is a shape changer.

9. A system as in claim 6, further comprising a beam of light, producing said heat source.

10. A system as in claim 9, wherein said light has an intensity greater then 300 W.

11. A method, comprising:

providing a movable device adjacent to a source of heat to control an object that will be placed adjacent to said source of heat; and

controlling moving said movable device using a motor that is remote from said movable device and connects to said movable device using a belt, while maintaining said belt on a side of said movable device which is distant from said source of heat.

12. A method as in claim 11, wherein said controlling comprises wrapping said belt around belt redirecting mechanisms.

13. A method as in claim 11, wherein said controlling comprises using a first frictional surface of the belt to connect with said motor, and using a second frictional surface of the belt to connect with said movable device.

14. A method as in claim 11, wherein said controlling comprises controlling a color changer to move to change a color of a light beam which forms said source of heat.

15. A method as in claim 11, wherein said controlling comprises controlling a light beam shaping element to move to change a shape of a light beam which forms said source of heat.

16. A method as in claim 11, wherein said source of heat is formed by a light beam greater then 300 W in intensity.

17. A method, comprising:

providing a movable device adjacent to a light beam, to change a characteristic of the light beam; and

controlling said movable device using a remote motor, and a belt connection between said remote motor and said movable device, said controlling comprises maintaining said belt connection at all times no closer to said light beam than said movable device.

18. A method as in claim 17, wherein said light beam is a light beam of at least 300 W of intensity.

19. A method as in claim 17, wherein said light beam is a light beam of at least 600 W of intensity.

20. A method as in claim 18, wherein said controlling comprises wrapping the belt around idlers to change a path of the belt.

21. A method as in claim 18, wherein said controlling comprises using a first surface of the belt to connect to said remote motor and a second surface of the belt to connect to said movable device.

Evidence Appendix

None.

Related Proceedings Appendix

None.